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Prepn. of silica gel with controlled pore volume, etc. - comprises drying silica hydrogel by batch type fluidised drying method
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JP 9030809	A	19970204	JP 95185171	A	19950721	199715	B

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Abstract (Basic): JP 9030809 A
Prepn. of silica gel comprises drying silica hydrogel by the batch type fluidiseddrying method.
The water content of silica hydrogel is pref. 50-80 wt.%. The batch type fluidised drying is pref. effected so that the temp. of exhaust gas is 20-150 de.C. The duration of batch type fluidised drying is pref. 1-200 mins.. The average particle dia. of hydrogel is pref. 1-20 mm.
ADVANTAGE - The BET specific surface area, pore volume, and average pore dia. can be controlled and silica gel with sharp pore size distribution can be produced efficiently.
In an example, a 20 wt.% sodium silicate soln. and a 35 wt.% sulphuric acid soln. were reacted with a mixing nozzle to obtain silica hydrosol. The silica hydrosol was gelled in 5 mins. to obtain silica hydrogel. The silica hydrogel was crushed to a size of 10 mm with a sieve, treated hydrothermally at 90 deg.C at pH 9.5 for 4 hrs., washed, and subjected to batch type fluidised drying with the exhaust gas temp. kept at 61 deg.C.
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Derwent Class: E36
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